



RAW SEQUENCE LISTING **ERROR REPORT**

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Application Serial Number: 09/674,546
Source: PCT09
Date Processed by STIC: 6/6/03

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- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

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Revised 04/24/2003



Does not comply
with the requirements of the
PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,546

DATE: 06/06/2003

TIME: 14:00:47

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

3 <110> APPLICANT: Fraser, Clair
 4 Galeotti, Cesira
 5 Grandi, Guido
 6 Hickey, Erin
 7 Mesignani, Vega
 8 Mora, Marirosa
 9 Peterson, Jeremy
 10 Pizza, Marigrazia
 11 Rappuoli, Rino
 12 Ratti, Giulio
 13 Scarloto, Vincenzo
 14 Scarselli, Maria
 15 Tettelin, Herve
 16 Venter, Craig
 18 <120> TITLE OF INVENTION: Neisseria Meningitidis Antigens and Compositions
 20 <130> FILE REFERENCE: CHIR0334
 22 <140> CURRENT APPLICATION NUMBER: 09/674,546
 23 <141> CURRENT FILING DATE: 1999-04-30 (International Filing Date)
 25 <160> NUMBER OF SEQ ID NOS: 3264
 27 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

2193 <210> SEQ ID NO: 64
 2194 <211> LENGTH: 234 → found 202
 2195 <212> TYPE: PRT
 2196 <213> ORGANISM: Neisseria meningitidis
 2198 <220> FEATURE:
 2199 <221> NAME/KEY: UNSURE
 2200 <222> LOCATION: (1)
 2201 <223> OTHER INFORMATION: Xaa is any amino acid
 2203 <220> FEATURE:
 2204 <221> NAME/KEY: UNSURE
 2205 <222> LOCATION: (34)
 2206 <223> OTHER INFORMATION: Xaa is any amino acid
 2208 <220> FEATURE:
 2209 <221> NAME/KEY: UNSURE
 2210 <222> LOCATION: (112) → NO Xaa found at position 112
 2211 <223> OTHER INFORMATION: Xaa is any amino acid
 2213 <400> SEQUENCE: 64
 W--> 2214 Xaa Gln Leu Ser Lys Ser Gly Leu Asn Cys Ala Val Leu Ser Lys Val
 2215 1 5 10 15

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2217 Phe Pro Thr Arg Ser His Thr Val Ala Ala Gln Gly Gly Ile Ser Ala
2218          20          25          30
2220 Ser Xaa Gly Asn Val Gln Glu Asp Arg Trp Asp Trp His Met Tyr Asp
2221          35          40          45
2223 Thr Val Lys Gly Ser Asp Trp Leu Gly Asp Gln Asp Ala Ile Glu Phe
2224          50          55          60
2226 Met Cys Arg Ala Ala Pro Glu Ala Val Ile Glu Leu Glu His Met Gly
2227          65          70          75          80
2229 Met Pro Phe Asp Arg Val Glu Ser Gly Lys Ile Tyr Gln Arg Pro Phe
2230          85          90          95
2232 Cys Ala Val Ala Asp Arg Thr Gly His Ala Met Leu His Thr Leu Tyr
2233          100         105         110
2235 Gln Gln Asn Val Arg Ala Asn Thr Gln Phe Phe Val Glu Trp Thr Ala
2236          115         120         125
2238 Gln Asp Leu Ile Arg Asp Glu Asn Gly Asp Val Val Gly Val Thr Ala
2239          130         135         140
2241 Met Glu Met Glu Thr Gly Glu Val Tyr Ile Phe His Ala Lys Ala Val
2242          145         150         155         160
2244 Met Phe Ala Thr Gly Gly Gly Gly Arg Ile Tyr Ala Ser Ser Thr Asn
2245          165         170         175
2248 Gly Ile Pro Leu Glu Asp Met Glu Phe Trp Gln Phe Gln Pro Thr Gly
2249          180         185         190
2251 Val Ala Gly Ala Gly Val Leu Ile Thr Glu
E--> 2252          195         200
3592 <210> SEQ ID NO: 98
3593 <211> LENGTH: 124
3594 <212> TYPE: PRT
3595 <213> ORGANISM: Neisseria meningitidis
3597 <400> SEQUENCE: 98
3598 Met Gln Tyr Leu Ile Val Lys Tyr Ser His Gln Ile Phe Val Thr Ile
3599    1          5          10          15
E--> 3601 Thr Ile Leu Val Phe Asn Ile Arg Val Phe Xaa Leu Trp Lys Asn Pro
3602          20          25          30
3604 Glu Lys Pro Leu Ala Gly Phe Trp Lys Ala Leu Pro His Leu Asn Asp
3605          35          40          45
3607 Thr Met Leu Leu Phe Thr Gly Leu Trp Leu Met Lys Ile Thr His Phe
3608          50          55          60
3610 Ser Pro Phe Asn Ala Pro Trp Leu Gly Thr Lys Ile Leu Leu Leu Leu
3611          65          70          75          80
3613 Ala Tyr Ile Ala Leu Gly Met Met Met Met Arg Ala Arg Pro Arg Ser
3614          85          90          95
3616 Thr Lys Phe Tyr Thr Val Tyr Leu Leu Ala Met Cys Cys Leu Thr Cys
3617          100         105         110
3619 Ile Val Tyr Leu Ala Lys Thr Lys Val Leu Pro Phe
3620          115         120
8134 <210> SEQ ID NO: 213
8135 <211> LENGTH: 393
8136 <212> TYPE: DNA
8137 <213> ORGANISM: Neisseria meningitidis

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*Xaa detected, feature required
- see p. 18*

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TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

8139 <400> SEQUENCE: 213

8140 atgggcgcgg gctggtgtcc tcccgccatc ttgggtatcg gcacgcgcgg cagccgaaaa 60

8141 agccgtgctg atggcaaaag agtcctgat gagccacatc gacattcaag aattgcagga 120

8142 aaaggccgcg tccggcgcgg aattgtccac caccgaagcc ctgcgcctcg aactctttga 180

E--> 8143 aaaagtcaac ggcgtggg atcggcgcac aaggcttggg cggactgacc accgtgttgg 240

E--> 8144 acgtgaaaat cctcgattat cgcacccacg ccgcctccaa accgattgcc atgattccg 300

E--> 8145 aactgcgcgc ccacccgccg cgtcgaattt gaattggacg gctcaggccc tgtcgaactc 360

E--> 8146 acgcgcgcgc gcgtcgaaga tggcccgcatt tga 393

8149 <210> SEQ ID NO: 214

8150 <211> LENGTH: 130

8151 <212> TYPE: PRT

8152 <213> ORGANISM: Neisseria meningitidis

8154 <400> SEQUENCE: 214

8155 Met Gly Ala Gly Trp Cys Pro Pro Gly Ile Leu Gly Ile Gly Ile Gly

8156 1 5 10 15

E--> 8158 Gly Xaa Ala Glu Lys Ala Val Leu Met Ala Lys Glu Ser Leu Met Ser

8159 20 25 30

8161 His Ile Asp Ile Gln Glu Leu Gln Glu Lys Ala Ala Ser Gly Ala Glu

8162 35 40 45

8164 Leu Ser Thr Thr Glu Ala Leu Arg Leu Glu Leu Phe Glu Lys Val Asn

8165 50 55 60

8167 Ala Leu Gly Ile Gly Ala Gln Gly Leu Gly Gly Leu Thr Thr Val Leu

8168 65 70 75 80

8170 Asp Val Lys Ile Leu Asp Tyr Pro Thr His Ala Ala Ser Lys Pro Ile

8171 85 90 95

8173 Ala Met Ile Pro Asn Cys Ala Ala Thr Arg His Val Glu Phe Glu Leu

8174 100 105 110

8176 Asp Gly Ser Gly Pro Val Glu Leu Thr Pro Pro Arg Val Glu Asp Gly

8177 115 120 125

8179 Pro Ile

8180 130

8844 <210> SEQ ID NO: 232

8845 <211> LENGTH: 128

8846 <212> TYPE: PRT

8847 <213> ORGANISM: Neisseria meningitidis

8849 <400> SEQUENCE: 232

8850 Met Cys Met Pro Tyr Lys Ile Arg Val Ser Asp Gly Ile Cys Cys Pro

8851 1 5 10 15

8853 Met Pro Ser Glu Thr Arg Asn Gln Arg Ala Ser Ala Cys Phe Lys Ser

8854 20 25 30

8856 Ser Ile Lys Ser Pro Thr Tyr Ser Lys Pro Thr Asp Arg Arg Thr Asn

8857 35 40 45

8859 Pro Gly Arg Met Leu Ala Ala Ser Phe Ser Ser Gly Cys Ile Leu Pro

8860 50 55 60

8862 Cys Val Val Val His Gly Trp Val Met Val Glu Arg Thr Ser Pro Arg

8863 65 70 75 80

8865 Leu Ala Val Arg Glu Lys Ser Ser Thr Pro Ser Thr Thr Phe His Ala

8866 85 90 95

E--> 8869 Ala Ser Xaa Ser Ala Thr Ser Lys Pro Met Thr Met Pro Pro Phe

*wrong nucleic acid designator**Xaa found, feature required, see p. 18**Xaa found, same error*

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Output Set: N:\CRF4\06062003\I674546.raw

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      8870                100                105                110
E--> 8872 Cys Cys Leu Arg Ile Ser Ala Ala Xaa Gly Trp Ser Asp Asn Pro Val
      8873                115                120                125
      8894 <210> SEQ ID NO: 234
      8895 <211> LENGTH: 130
      8896 <212> TYPE: PRT
      8897 <213> ORGANISM: Neisseria meningitidis
      8899 <400> SEQUENCE: 234
      8900 Thr Cys Met Ser Tyr Lys Ile Arg Val Ser Asp Gly Ile Cys Gly Val
      8901 1 5 10 15
E--> 8903 Phe Pro Pro Met Pro Ser Glu Xaa Arg Asn Gln Arg Ala Ser Ala Cys
      8904 20 25 30
      8906 Phe Lys Ser Ser Ile Lys Ser Pro Thr Tyr Ser Lys Pro Thr Asp Arg
      8907 35 40 45
      8909 Arg Thr Asn Pro Gly Arg Met Leu Ala Ala Ser Phe Ser Ser Gly Cys
      8910 50 55 60
      8912 Ile Leu Pro Cys Val Val Val His Gly Trp Val Met Val Glu Arg Thr
      8913 65 70 75 80
      8915 Ser Pro Arg Leu Ala Val Arg Glu Lys Ser Ser Thr Pro Ser Thr Thr
      8916 85 90 95
      8918 Phe His Ala Ala Ala Trp Ser Ala Thr Ser Lys Pro Met Thr Met Pro
      8919 100 105 110
      8921 Pro Pro Phe Cys Cys Leu Arg Ile Ser Ser Ala Gly Trp Ser Gly Asn
      8922 115 120 125
      8924 Pro Val
      8925 130
      9467 <210> SEQ ID NO: 250
      9468 <211> LENGTH: 455
      9469 <212> TYPE: PRT
      9470 <213> ORGANISM: Neisseria meningitidis
      9472 <400> SEQUENCE: 250
      9473 Met Lys Pro Leu Asp Leu Asn Phe Ile Cys Gln Ala Leu Lys Leu Pro
      9474 1 5 10 15
      9476 Met Pro Ser Glu Ser Lys Pro Val Ser Arg Ile Val Thr Asp Ser Arg
      9477 20 25 30
      9479 Asp Ile Arg Ala Gly Asp Val Phe Phe Ala Leu Ala Gly Glu Arg Phe
      9480 35 40 45
      9482 Asp Ala His Asp Phe Val Glu Asp Val Leu Ala Ala Gly Ala Ala Ala
      9483 50 55 60
      9485 Val Val Val Ser Arg Glu Asp Cys Ala Ala Met Asp Gly Ala Leu Lys
      9486 65 70 75 80
      9488 Val Asp Asp Thr Leu Ala Ala Leu Gln Thr Leu Ala Lys Ala Trp Arg
      9489 85 90 95
      9491 Glu Asn Val Asn Pro Phe Val Phe Gly Ile Thr Gly Ser Gly Gly Lys
      9492 100 105 110
      9494 Thr Thr Val Lys Glu Met Leu Ala Ala Val Leu Arg Arg Arg Phe Gly
      9495 115 120 125
      9497 Asp Asp Ala Val Leu Ala Thr Ala Gly Asn Phe Asn Asn His Ile Gly
      9498 130 135 140

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9500 Leu Pro Leu Thr Leu Leu Lys Leu Asn Glu Lys His Arg Tyr Ala Val
9501 145 150 155 160
E--> 9503 Ile Glu Met Gly Met Asn His Phe Gly Glu Leu Ala Val Leu Thr Xaa
9504 165 170 175
9506 Ile Ala Lys Pro Asn Ala Ala Leu Val Asn Asn Ala Met Arg Ala His
9507 180 185 190
9509 Val Gly Cys Gly Phe Asp Gly Val Gly Asp Ile Ala Lys Ala Lys Ser
9510 195 200 205
9512 Glu Ile Tyr Gln Gly Leu Cys Ser Asp Gly Ile Ala Leu Ile Pro Gln
9513 210 215 220
9515 Glu Asp Ala Asn Met Ala Val Phe Lys Thr Ala Thr Leu Asn Leu Asn
9516 225 230 235 240
9518 Thr Arg Thr Phe Gly Ile Asp Ser Gly Asp Val His Ala Glu Asn Ile
9519 245 250 255
9521 Val Leu Lys Pro Leu Ser Cys Glu Phe Asp Leu Val Cys Gly Asp Glu
9522 260 265 270
9524 Arg Ala Ala Val Val Leu Pro Val Pro Gly Arg His Asn Val His Asn
9525 275 280 285
9527 Ala Ala Ala Ala Ala Leu Ala Leu Ala Ala Gly Leu Ser Leu Asn
9528 290 295 300
9530 Asp Val Ala Glu Gly Leu Lys Gly Phe Ser Asn Ile Lys Gly Arg Leu
9531 305 310 315 320
9533 Asn Val Lys Ser Gly Ile Lys Gly Ala Thr Leu Ile Asp Asp Thr Tyr
9534 325 330 335
9536 Asn Ala Asn Pro Asp Ser Met Lys Ala Ala Ile Asp Val Leu Ala Arg
9537 340 345 350
9539 Met Pro Ala Pro Arg Ile Phe Val Met Gly Asp Met Gly Glu Leu Gly
9540 355 360 365
9542 Glu Leu Gly Glu Asp Glu Ala Ala Met His Ala Glu Val Gly Ala
9543 370 375 380
9545 Tyr Ala Arg Asp Gln Gly Ile Glu Ala Ala Tyr Phe Val Gly Asp Asn
9546 385 390 395 400
9548 Ser Val Glu Ala Ala Glu Lys Phe Gly Ala Asp Gly Leu Trp Phe Ala
9549 405 410 415
9551 Ala Lys Asp Pro Leu Ile Gln Val Leu Arg His Asp Leu Pro Glu Arg
9552 420 425 430
9554 Ala Thr Val Leu Val Lys Gly Ser Arg Phe Met Gln Met Glu Glu Val
9555 435 440 445
9557 Val Glu Ala Leu Glu Asp Lys
9558 450 455
9762 <210> SEQ ID NO: 255
9763 <211> LENGTH: 744
9764 <212> TYPE: DNA
9765 <213> ORGANISM: Neisseria meningitidis
9767 <400> SEQUENCE: 255
E--> 9768 atgnggttgt tgaagttgcc tgccgtcgcc aacacggcat catcgccgaa acggcgggcgc 60
9769 aataccgcag ccagcatttc cttaccgctc gtcttgccgc ccgaaccggt aatgccgaac 120
9770 acaaacggat tcacattttc acgccacgcc tttgccagcg tttgcaatgc ggcaagcgtg 180
9771 tcatcgactt tcaacgcgcc atccattgca gcacaatctt cgcgcgaaac cacaaccgcc 240

```

*n found, feature required
see p. 18*

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DATE: 06/06/2003

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TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

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9772 gccgcaccag cagccaatac gtcttcaaca aaatcatgcg cgtcaaaccg ctcgcccgcg 300
9773 aatgcgaaaa acacatcgcc cgcgcggatg tcgcggctgt cggttacgat gcgcgacacg 360
9774 ggtttgcttt cagacggcat cggaagcttg agggcttggc agatgaaatt taggtccagt 420
9775 ggtttcatat ttactttcgt taatattcgg gcggcggaca catcggtagc ggctgatttt 480
9776 tttatcgctt gttttgctgt ggtaaaacac agattatttt cccattctca ttcggsattt 540
9777 tttctgtacg tatcattttt tagacgtatt tttagtcgat ttgccttttc ccgcatacca 600
9778 cggcgcgggg tcgtcgggca gtcgctcgat aaaggcaagg ttattgcctt cgcctgcac 660
9779 atcggaaca tcccccaaa aatcatagcc gtcacgggc aactcgtcg tttcgatacc 720
9780 cgtccaactg ccgaatccgc gtaa 744

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9783 <210> SEQ ID NO: 256

9784 <211> LENGTH: 247

9785 <212> TYPE: PRT

9786 <213> ORGANISM: Neisseria meningitidis

9788 <400> SEQUENCE: 256

*Not found
- some error*

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E--> 9789 Met Xaa Leu Leu Lys Leu Pro Ala Val Ala Asn Thr Ala Ser Ser Pro
9790 1 5 10 15
9792 Lys Arg Arg Arg Asn Thr Ala Ala Ser Ile Ser Phe Thr Val Val Leu
9793 20 25 30
9795 Pro Pro Glu Pro Val Met Pro Asn Thr Asn Gly Phe Thr Phe Ser Arg
9796 35 40 45
9798 His Ala Phe Ala Ser Val Cys Asn Ala Ala Ser Val Ser Ser Thr Phe
9799 50 55 60
9801 Asn Ala Pro Ser Ile Ala Ala Gln Ser Ser Arg Glu Thr Thr Thr Ala
9802 65 70 75 80
9804 Ala Ala Pro Ala Ala Asn Thr Ser Ser Thr Lys Ser Cys Ala Ser Asn
9805 85 90 95
9807 Arg Ser Pro Ala Asn Ala Lys Asn Thr Ser Pro Ala Arg Met Ser Arg
9808 100 105 110
9810 Leu Ser Val Thr Met Arg Asp Thr Gly Leu Leu Ser Asp Gly Ile Gly
9811 115 120 125
9813 Ser Leu Arg Ala Trp Gln Met Lys Phe Arg Ser Ser Gly Phe Ile Phe
9814 130 135 140
9816 Thr Phe Val Asn Ile Arg Ala Ala Asp Thr Ser Val Ala Ala Asp Phe
9817 145 150 155 160
9819 Phe Ile Ala Cys Phe Ala Val Val Lys His Arg Leu Phe Ser His Ser
9820 165 170 175
E--> 9822 His Ser Xaa Phe Phe Leu Tyr Val Ser Phe Phe Arg Arg Ile Phe Ser
9823 180 185 190
9825 Arg Phe Ala Phe Ser Arg Ile Pro Arg Arg Gly Val Val Gly Gln Ser
9826 195 200 205
9828 Val Asp Lys Gly Lys Val Ile Ala Phe Ala Leu His Ile Gly Asn Ile
9829 210 215 220
9831 Pro Pro Lys Ile Ile Ala Val Ile Gly Gln Leu Val Gly Phe Asp Thr
9832 225 230 235 240
9834 Arg Pro Thr Ala Glu Ser Ala
9835 245
9987 <210> SEQ ID NO: 261
9988 <211> LENGTH: 694
9989 <212> TYPE: DNA

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Input Set : E:\Chir0334.txt

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9990 <213> ORGANISM: Neisseria meningitidis
 9992 <400> SEQUENCE: 261
 9993 atgaaacaat cgcgccgaat aaaaatatga atcagacatt actttataca ttgggcattt 60
 E--> 9994 **gcgcgctttt aacctttnnn nnnnnnnnnn nnnnnnnnnn nnnntatcac ccngaatatg 120**
 9995 aatacggcta ccgttattct gccgtgggtg ctttggcttc ggttgtattt ttattattat 180
 9996 tggcacgcgg tttccgcgcg gtttcttcag ttgttttact gatttacgtc ggcacaaccg 240
 9997 ccctatatatt gccggtcggc tggctgtatg gtgcgccgtc ttatcagata gtcggttcga 300
 9998 tattggaaag caatcctgcc gaggcgcgtg aatttgcgg caatcttccc gggtcgcttt 360
 9999 attttgtgca ggcattattt ttcatttttg gcttgacagt ttggaaatat tgtgtatcgg 420
 10000 ggggggtatt tgctgacgta aaaaactata aacgccgcag caaaatatgg ctgactatat 480
 10001 tattgacttt gattttgtcc tgcgcggtga tggataaaat cgccagcgat aaagatttgc 540
 10002 gagaacctga tgccggcctg ttgttgaata ttttcgacct gtattacgat ttggcttccg 600
 10003 cgccggcaca atatgccgc aagcgcgccc acattttgga agcagcaaaa aaagcgtcaa 660
 10004 catggcatat ccgtcatgtt gcgcccaagt ataa 694
 10007 <210> SEQ ID NO: 262
 10008 <211> LENGTH: 231
 10009 <212> TYPE: PRT
 10010 <213> ORGANISM: Neisseria meningitidis
 10012 <400> SEQUENCE: 262
 E--> 10013 **Met Lys Gln Ser Ala Arg Ile Lys Xaa Met Asn Gln Thr Leu Leu Tyr**
 10014 1 5 10 15
 E--> 10016 **Thr Leu Gly Ile Cys Ala Leu Leu Thr Phe Xaa Xaa Xaa Xaa Xaa Xaa**
 10017 20 25 30
 E--> 10019 **Xaa Xaa Xaa Tyr His Pro Glu Tyr Glu Tyr Gly Tyr Arg Tyr Ser Ala**
 10020 35 40 45
 10022 Val Gly Ala Leu Ala Ser Val Val Phe Leu Leu Leu Leu Ala Arg Gly
 10023 50 55 60
 10025 Phe Pro Arg Val Ser Ser Val Val Leu Leu Ile Tyr Val Gly Thr Thr
 10026 65 70 75 80
 10028 Ala Leu Tyr Leu Pro Val Gly Trp Leu Tyr Gly Ala Pro Ser Tyr Gln
 10029 85 90 95
 10031 Ile Val Gly Ser Ile Leu Glu Ser Asn Pro Ala Glu Ala Arg Glu Phe
 10032 100 105 110
 10034 Val Gly Asn Leu Pro Gly Ser Leu Tyr Phe Val Gln Ala Leu Phe Phe
 10035 115 120 125
 10037 Ile Phe Gly Leu Thr Val Trp Lys Tyr Cys Val Ser Gly Gly Val Phe
 10038 130 135 140
 10040 Ala Asp Val Lys Asn Tyr Lys Arg Arg Ser Lys Ile Trp Leu Thr Ile
 10041 145 150 155 160
 10043 Leu Leu Thr Leu Ile Leu Ser Cys Ala Val Met Asp Lys Ile Ala Ser
 10044 165 170 175
 10046 Asp Lys Asp Leu Arg Glu Pro Asp Ala Gly Leu Leu Leu Asn Ile Phe
 10047 180 185 190
 E--> 10049 **Asp Leu Tyr Tyr Asp Leu Ala Xaa Arg Ala Gly Thr Ile Cys Arg Gln**
 10050 195 200 205
 10052 Ala Arg Pro His Phe Gly Ser Ser Lys Lys Ser Val Asn Met Ala Tyr
 10053 210 215 220
 10055 Pro Ser Cys Cys Ala Gln Val
 10056 225 230

*- n found, same error**- X22 - same error*

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Input Set : E:\Chir0334.txt

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10079 <210> SEQ ID NO: 264

10080 <211> LENGTH: 231

10081 <212> TYPE: PRT

10082 <213> ORGANISM: Neisseria meningitidis

10084 <400> SEQUENCE: 264

10085 Met Lys Gln Ser Ala Arg Ile Lys Asn Met Asp Gln Thr Leu Lys Asn

10086 1 5 10 15

10088 Thr Leu Gly Ile Cys Ala Leu Leu Ala Phe Cys Phe Gly Ala Ala Ile

10089 20 25 30

10091 Ala Ser Gly Tyr His Leu Glu Tyr Glu Tyr Gly Tyr Arg Tyr Ser Ala

10092 35 40 45

10094 Val Gly Ala Leu Ala Ser Val Val Phe Leu Leu Leu Leu Ala Arg Gly

10095 50 55 60

10097 Phe Pro Arg Val Ser Ser Val Val Leu Leu Ile Tyr Val Gly Thr Thr

10098 65 70 75 80

10100 Ala Leu Tyr Leu Pro Val Gly Trp Leu Tyr Gly Ala Pro Ser Tyr Gln

10101 85 90 95

10103 Ile Val Gly Ser Ile Leu Glu Ser Asn Pro Ala Glu Ala Arg Glu Phe

10104 100 105 110

10106 Val Gly Asn Leu Pro Gly Ser Leu Tyr Phe Val Gln Ala Leu Phe Phe

10107 115 120 125

10109 Ile Phe Gly Leu Thr Val Trp Arg Tyr Cys Val Ser Gly Gly Val Phe

10110 130 135 140

10112 Ala Asp Val Lys Asn Tyr Lys Arg Arg Ser Lys Ile Trp Leu Thr Ile

10113 145 150 155 160

10115 Leu Leu Thr Leu Ile Leu Ser Cys Ala Val Met Asp Lys Ile Ala Ser

10116 165 170 175

10118 Asp Lys Asp Leu Arg Glu Pro Asp Ala Gly Leu Leu Leu Asn Ile Phe

10119 180 185 190

E--> 10121 Asp Leu Tyr Tyr Asp Leu Ala Ser Xaa Ala Gly Thr Ile Cys Arg Gln

10122 195 200 205

10124 Ala Arg Pro His Phe Gly Ser Ser Lys Lys Ser Val Asn Met Ala Tyr

10125 210 215 220

10127 Pro Ser Cys Cys Ala Gln Val

10128 225 230

10383 <210> SEQ ID NO: 274

10384 <211> LENGTH: 396

10385 <212> TYPE: PRT

10386 <213> ORGANISM: Neisseria meningitidis

10388 <400> SEQUENCE: 274

10389 Met Val Val Leu Met Thr Ala Phe Ser Leu Leu Met Ile Tyr Ser Ala

10390 1 5 10 15

10392 Ser Val Tyr Leu Ala Ser Lys Glu Gly Gly Asp Gln Phe Phe Tyr Leu

10393 20 25 30

10395 Thr Arg Gln Ala Gly Phe Val Val Ala Gly Leu Ile Ala Ser Gly Leu

10396 35 40 45

10398 Leu Trp Phe Leu Cys Arg Met Arg Thr Trp Arg Arg Leu Val Pro Trp

10399 50 55 60

10401 Ile Phe Ala Leu Ser Gly Leu Leu Leu Val Val Val Leu Ile Ala Gly

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10402 65                      70                      75                      80
10404 Arg Glu Ile Asn Gly Ala Thr Arg Trp Ile Pro Leu Gly Pro Leu Asn
10405                      85                      90                      95
10408 Phe Gln Pro Thr Glu Leu Phe Lys Leu Ala Val Ile Leu Tyr Leu Ala
10409                      100                      105                      110
10411 Ser Leu Phe Thr Arg Arg Glu Glu Val Leu Arg Ser Met Glu Ser Leu
10412                      115                      120                      125
10414 Gly Trp Gln Ser Ile Trp Arg Gly Thr Ala Asn Leu Ile Met Ser Ala
10415                      130                      135                      140
E--> 10417 Thr Asn Pro Gln Xaa Arg Arg Glu Thr Leu Glu Met Tyr Gly Arg Xaa
10418 145                      150                      155                      160
10420 Arg Ala Ile Ile Leu Pro Ile Met Leu Val Ala Phe Gly Leu Val Leu
10421                      165                      170                      175
10423 Ile Met Val Gln Pro Asp Phe Gly Ser Phe Val Val Ile Thr Val Ile
10424                      180                      185                      190
10426 Ala Val Gly Met Leu Phe Leu Ala Gly Leu Pro Trp Lys Tyr Phe Phe
10427                      195                      200                      205
10429 Val Leu Val Gly Ser Val Leu Gly Gly Met Val Leu Met Ile Thr Ala
10430                      210                      215                      220
10432 Ala Pro Tyr Arg Val Gln Arg Val Val Ala Phe Leu Asp Pro Trp Lys
10433 225                      230                      235                      240
10435 Asp Pro Gln Gly Ala Gly Tyr Gln Leu Thr His Ser Leu Met Ala Ile
10436                      245                      250                      255
10438 Gly Arg Gly Glu Trp Phe Gly Met Gly Leu Gly Ala Ser Leu Ser Lys
10439                      260                      265                      270
10441 Arg Gly Phe Leu Pro Glu Ala His Thr Asp Phe Ile Phe Ala Ile Ile
10442                      275                      280                      285
10444 Ala Glu Glu Phe Gly Phe Phe Gly Met Cys Val Leu Ile Phe Cys Tyr
10445                      290                      295                      300
10447 Gly Trp Leu Val Val Arg Ala Phe Ser Ile Gly Lys Gln Ser Arg Asp
10448 305                      310                      315                      320
10450 Leu Gly Leu Thr Phe Asn Ala Tyr Ile Ala Ser Gly Ile Gly Ile Trp
10451                      325                      330                      335
E--> 10453 Ile Gly Xaa Gln Ser Phe Phe Asn Ile Gly Val Asn Ile Gly Ala Leu
10454                      340                      345                      350
E--> 10456 Pro Xaa Lys Gly Leu Thr Xaa Pro Xaa Met Ser Xaa Gly Gly Ser Ser
10457                      355                      360                      365
E--> 10459 Val Phe Phe Met Leu Ile Ser Met Met Leu Leu Xaa Arg Ile Asp Tyr
10460                      370                      375                      380
10462 Glu Asn Arg Arg Lys Met Arg Gly Tyr Arg Val Glu
10463 385                      390                      395
10678 <210> SEQ ID NO: 279
10679 <211> LENGTH: 1008
10680 <212> TYPE: DNA
10681 <213> ORGANISM: Neisseria meningitidis
10683 <400> SEQUENCE: 279
10684 atgggcggtgta aaacctttat gctgawkkcg ggcggaacgg gcggacatat tttccccgcg 60
10685 ctggcggttg cggattcatt gcgcgcgcgc ggccatcatg tgatttggtt gggcagcaag 120
10686 gattcgatgg aagagcgtat cgtgccgcaa tacggcatat gcttggaaac gctggcgatt 180

```

- Same env

RAW SEQUENCE LISTING

DATE: 06/06/2003

PATENT APPLICATION: US/09/674,546

TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

```

10687 aaaggcgtgc gcggcaacgg catcaaacgc aaactgatgc tgccggttac tttgtatcaa 240
10688 accgtcccgcg aagcgcagcg gattatccgc aaacaccgtg tcgagtgcgt catcggttc 300
10689 ggcggcttcg ttaccttccc cggcggtttg gcggcgaagc tattargcgt gccgattgtg 360
10690 attcacgagc aaaacgccgt ggcaggtttg tccaaccgcc acctgtcgcg ctgggcgaag 420
10691 cgggtgttgt acgcttttcc gaaagcgttc agccacgaag gcggcttggt cggcaacccc 480
10692 gtccgcgccg atattagcaa cctgcccggt cctgccgaac gcttccaagg gcgtgaaggc 540
10693 cgtctgaaaa ttttggttgt cggcggcagt ttgggcgcgg acgttttgaa caaaaccgta 600
10694 ccgcatgcat tggctttgct gcccgacaat gcgcgtccgc atatgtacca ccaatcgga 660
E--> 10695 cggggcaagc tgggcatctt gcaggcggnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 720
E--> 10696 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnngcgggat tgggtgcgtt gttagtgcg 780
10697 tatcctcacg cggttgacga tcaccaaacc gccaacgcgc gttttatggt gcaggcggag 840
10698 gcgggattgc tggtgccgca aaccagttg acggcggaaa aactcgccga gattctcggc 900
10699 ggcttaaacc gcgaaaaatg cctcaaattg gcagaaaacg cccgtacgtt ggcactgccg 960
10700 cacagtgcgg acgacgtggc ggaagccgcg attgcgtgtg cggcgtaa 1008
10703 <210> SEQ ID NO: 280
10704 <211> LENGTH: 335
10705 <212> TYPE: PRT
10706 <213> ORGANISM: Neisseria meningitidis
10708 <400> SEQUENCE: 280
E--> 10709 Met Gly Gly Lys Thr Phe Met Leu Xaa Xaa Gly Gly Thr Gly Gly His
10710 1 5 10 15
10712 Ile Phe Pro Ala Leu Ala Val Ala Asp Ser Leu Arg Ala Arg Gly His
10713 20 25 30
10715 His Val Ile Trp Leu Gly Ser Lys Asp Ser Met Glu Glu Arg Ile Val
10716 35 40 45
10718 Pro Gln Tyr Gly Ile Arg Leu Glu Thr Leu Ala Ile Lys Gly Val Arg
10719 50 55 60
10721 Gly Asn Gly Ile Lys Arg Lys Leu Met Leu Pro Val Thr Leu Tyr Gln
10722 65 70 75 80
10724 Thr Val Arg Glu Ala Gln Arg Ile Ile Arg Lys His Arg Val Glu Cys
10725 85 90 95
10727 Val Ile Gly Phe Gly Gly Phe Val Thr Phe Pro Gly Gly Leu Ala Ala
10728 100 105 110
E--> 10730 Lys Leu Leu Xaa Val Pro Ile Val Ile His Glu Gln Asn Ala Val Ala
10731 115 120 125
10733 Gly Leu Ser Asn Arg His Leu Ser Arg Trp Ala Lys Arg Val Leu Tyr
10734 130 135 140
10736 Ala Phe Pro Lys Ala Phe Ser His Glu Gly Gly Leu Val Gly Asn Pro
10737 145 150 155 160
10739 Val Arg Ala Asp Ile Ser Asn Leu Pro Val Pro Ala Glu Arg Phe Gln
10740 165 170 175
10742 Gly Arg Glu Gly Arg Leu Lys Ile Leu Val Val Gly Gly Ser Leu Gly
10743 180 185 190
10745 Ala Asp Val Leu Asn Lys Thr Val Pro His Ala Leu Ala Leu Leu Pro
10746 195 200 205
10748 Asp Asn Ala Arg Pro His Met Tyr His Gln Ser Gly Arg Gly Lys Leu
10749 210 215 220
E--> 10751 Gly Ile Leu Gln Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
10752 225 230 235 240

```

- Same end

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,546

DATE: 06/06/2003

TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

```

E--> 10754 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala Gly Leu Gly Ala
10755                245                250                255
10757 Leu Leu Val Pro Tyr Pro His Ala Val Asp Asp His Gln Thr Ala Asn
10758                260                265                270
10760 Ala Arg Phe Met Val Gln Ala Glu Ala Gly Leu Leu Leu Pro Gln Thr
10761                275                280                285
10763 Gln Leu Thr Ala Glu Lys Leu Ala Glu Ile Leu Gly Gly Leu Asn Arg
10764                290                295                300
10766 Glu Lys Cys Leu Lys Trp Ala Glu Asn Ala Arg Thr Leu Ala Leu Pro
10767 305                310                315                320
10769 His Ser Ala Asp Asp Val Ala Glu Ala Ala Ile Ala Cys Ala Ala
10770                325                330                335
10982 <210> SEQ ID NO: 285
10983 <211> LENGTH: 1131
10984 <212> TYPE: DNA
10985 <213> ORGANISM: Neisseria meningitidis
10987 <400> SEQUENCE: 285
E--> 10988 atgtttttat ggctcgacaca tttcagcanc tggttaaccg gtctgaatnn nnnnnnnnnn 60
E--> 10989 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
E--> 10990 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
E--> 10991 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
E--> 10992 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
E--> 10993 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360
E--> 10994 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420
E--> 10995 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 480
E--> 10996 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnggcgtgg tcggcttttt ggtgttgtct 540
10997 tacctgacca tcgtcggcac atccaatgcc gtcaacctca ccgacggcctt ggacggcctt 600
10998 gcgaccttcc ccgtcgtcct cgttgccgcc ggctcgcca tcttcgccta tgccagcggc 660
10999 cactcacaat ttgcccaata cctgcaatta ccttacgttg ccggcgcaaa cgaagtgggtg 720
11000 attttctgta ccgccatgtg cggcgcgctgc ctcggtttct tgtggtttta cgcctatccc 780
11001 gcgcaagtct ttatgggcga tgcggtgca ttggcattgg gtgccgcgct cggtagcgtc 840
11002 gccgttatcg tccgccaaaga gttgtcctc gtcattatgg gcggattatt tgctcgtaga 900
11003 gccgtatccg ttatgcttca gtttgctggt tataagaaaa ccaaaaaaacg catcttcctg 960
11004 atggcgccca tccatcacca ctacgaacaa aaaggctgga aagaaacca agtcgtcgtc 1020
11005 cgcttttggg ttattaccat cgtcttggtg ttgatcggtt tgagtaccct caaatccgc 1080
11006 tgaacctatg ccgtctgaac atctttcaga cggcatttga acgcgcaata a 1131
11009 <210> SEQ ID NO: 286
11010 <211> LENGTH: 376
11011 <212> TYPE: PRT
11012 <213> ORGANISM: Neisseria meningitidis
11014 <400> SEQUENCE: 286
11015 Met Phe Leu Trp Leu Ala His Phe Ser Asn Trp Leu Thr Gly Leu Asn
11016 1 5 10 15
11018 Ile Phe Gln Tyr Thr Thr Phe Arg Ala Val Met Ala Ala Leu Thr Ala
11019 20 25 30
11021 Leu Ala Phe Ser Leu Met Phe Gly Pro Trp Thr Ile Arg Arg Leu Thr
11022 35 40 45
11024 Ala Leu Lys Cys Gly Gln Ala Val Arg Thr Asp Gly Pro Gln Thr His
11025 50 55 60

```

Some error

RAW SEQUENCE LISTING

DATE: 06/06/2003

PATENT APPLICATION: US/09/674,546

TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

```

11027 Leu Val Lys Asn Gly Thr Pro Thr Met Gly Gly Ser Leu Ile Leu Thr
11028 65 70 75 80
11030 Ala Ile Thr Val Ser Thr Leu Leu Trp Gly Asn Trp Ala Asn Pro Tyr
11031 85 90 95
11033 Ile Trp Ile Leu Leu Gly Val Leu Leu Ala Thr Gly Ala Leu Gly Phe
11034 100 105 110
11036 Tyr Asp Asp Trp Arg Lys Val Val Tyr Lys Asp Pro Asn Gly Val Ser
11037 115 120 125
11039 Ala Lys Phe Lys Met Val Trp Gln Ser Ser Val Ala Val Ile Ala Gly
11040 130 135 140
11042 Leu Ala Leu Phe Tyr Leu Ala Ala Asn Ser Ala Asn Asn Ile Leu Ile
11043 145 150 155 160
11045 Val Pro Phe Phe Lys Gln Ile Ala Leu Pro Leu Gly Val Val Gly Phe
11046 165 170 175
11048 Leu Val Leu Ser Tyr Leu Thr Ile Val Gly Thr Ser Asn Ala Val Asn
11049 180 185 190
11051 Leu Thr Asp Gly Leu Asp Gly Leu Ala Thr Phe Pro Val Val Leu Val
11052 195 200 205
11054 Ala Ala Gly Leu Ala Ile Phe Ala Tyr Ala Ser Gly His Ser Gln Phe
11055 210 215 220
11057 Ala Gln Tyr Leu Gln Leu Pro Tyr Val Ala Gly Ala Asn Glu Val Val
11058 225 230 235 240
11060 Ile Phe Cys Thr Ala Met Cys Gly Ala Cys Leu Gly Phe Leu Trp Phe
11061 245 250 255
11063 Asn Ala Tyr Pro Ala Gln Val Phe Met Gly Asp Val Gly Ala Leu Ala
11064 260 265 270
11066 Leu Gly Ala Ala Leu Gly Thr Val Ala Val Ile Val Arg Gln Glu Phe
11067 275 280 285
11069 Val Leu Val Ile Met Gly Gly Leu Phe Val Val Glu Ala Val Ser Val
11070 290 295 300
11072 Met Leu Gln Val Gly Trp Tyr Lys Lys Thr Lys Lys Arg Ile Phe Leu
11073 305 310 315 320
11075 Met Ala Pro Ile His His Tyr Glu Gln Lys Gly Trp Lys Glu Thr
11076 325 330 335
11078 Gln Val Val Val Arg Phe Trp Ile Ile Thr Ile Val Leu Val Leu Ile
11079 340 345 350
E--> 11081 Gly Leu Ser Thr Leu Lys Ile Arg Xaa Thr Tyr Ala Val Xaa Thr Ser
11082 355 360 365
11084 Phe Arg Arg His Leu Asn Ala Gln
11085 370 375
11263 <210> SEQ ID NO: 292
11264 <211> LENGTH: 149
11265 <212> TYPE: PRT
11266 <213> ORGANISM: Neisseria meningitidis
11268 <400> SEQUENCE: 292
E--> 11269 Met Pro Pro Lys Ile Thr Xaa Ser Gly Phe Cys Lys Pro Ala Ile Ala
11270 1 5 10 15
11272 Ala Ala Val Ala Pro Thr Phe Val Pro Leu Leu Ser Ser Ile Asn Thr
11273 20 25 30

```

- Some error

RAW SEQUENCE LISTING

DATE: 06/06/2003

PATENT APPLICATION: US/09/674,546

TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

```

11275 Thr Pro Phe Phe Ser Pro Ile Phe Ser Thr Arg Cys Gly Arg Pro Trp
11276          35          40          45
11278 Lys Val Leu Thr Cys Ser Ser Asn Ala Ser Arg Asp Lys Pro Met Ala
11279          50          55          60
E--> 11281 Ser His Lys Ala Thr Ala Ala Met Thr Leu Ala Ala Leu Cys Xaa Pro
11282 65          70          75          80
11284 Cys Asn Gly Met Ser Cys Val Thr Ile Lys Ser Ser Leu Pro Cys Phe
11285          85          90          95
11287 Arg Arg Pro Val Ser Arg Ser Asn Gln Lys Ser Ala Ser Cys Ser Asn
11288          100          105          110
11290 Glu Asn His Phe Thr Ser Arg Pro Ala Arg Phe Ile Ala Arg Gln Asn
11291          115          120          125
11293 Ala Ser Ser Ala Phe Lys Thr Cys Thr Pro Ser Pro Arg Lys Ile Leu
11294          130          135          140
11296 Ala Leu Val Cys Ala
11297 145
11367 <210> SEQ ID NO: 296
11368 <211> LENGTH: 118
11369 <212> TYPE: PRT
11370 <213> ORGANISM: Neisseria gonorrhoeae
11372 <400> SEQUENCE: 296
11373 Met Arg Val Val Glu Gln Ile Val Val Ala Val Glu Met Val Phe Gly
11374 1          5          10          15
11376 Asn Val His His Arg Arg Arg Ser Arg Ala Gln Ala Phe Gly Val Phe
11377          20          25          30
11379 Gln Leu Glu Ala Gly Lys Leu Pro His Pro His Val Arg Leu Phe Ala
11380          35          40          45
11382 Phe Ala Leu Gln Phe Cys Leu Gln Asp Gly Arg Thr Asp Ile Ala Arg
11383          50          55          60
11385 Asn Asp Gly Ile Gln Pro Ala Leu Asp Ala Glu Ile Ala Asp Gln Ala
11386 65          70          75          80
11388 Gly Tyr Arg Gly Phe Ala Val Ala Ala Gly Asn Arg Asn His Leu Val
11389          85          90          95
E--> 11391 Ala Ala Ala Val His Asn Val Arg Gln Gln Leu Asp Val Ala Xaa His
11392          100          105          110
E--> 11394 Ala Xaa Arg Arg Phe Ala
11395          115
11412 <210> SEQ ID NO: 298
11413 <211> LENGTH: 118
11414 <212> TYPE: PRT
11415 <213> ORGANISM: Neisseria meningitidis
11417 <400> SEQUENCE: 298
11418 Met Arg Ile Val Glu Gln Val Val Val Ala Val Glu Met Val Phe Gly
11419 1          5          10          15
11421 Asn Val Gln His Arg Arg Arg Ser Arg Thr Gln Ala Phe Gly Val Phe
11422          20          25          30
11424 Gln Leu Glu Ala Gly Lys Leu Gln His Pro His Val Arg Leu Phe Ala
11425          35          40          45
11427 Phe Ala Leu Pro Phe Arg Leu Gln Asn Arg Arg Ala Asp Ile Ala Arg

```

- Same env

- Same env

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,546

DATE: 06/06/2003

TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

```

11428      50              55              60
11430 Asp Asn Gly Ile Gln Pro Ala Leu Asp Thr Glu Ile Ala Asp Gln Ala
11431 65              70              75              80
11433 Arg Tyr Arg Gly Phe Ala Val Ala Ala Gly Asn Arg Asn Tyr Leu Val
11434              85              90              95
11436 Val Pro Ala Val His Asn Val Arg Gln Gln Phe Asp Val Ala Gln His
11437              100              105              110
E--> 11439 Ala Xaa Arg Arg Phe Ala
11440              115
11457 <210> SEQ ID NO: 300
11458 <211> LENGTH: 118
11459 <212> TYPE: PRT
11460 <213> ORGANISM: Neisseria meningitidis
11462 <400> SEQUENCE: 300
11463 Met Arg Val Val Glu Gln Val Val Val Ala Val Glu Met Val Phe Gly
11464 1              5              10              15
11466 Asn Val Gln His Cys Arg Arg Ser Arg Ala Gln Ala Phe Gly Val Phe
11467              20              25              30
11469 Gln Leu Glu Thr Gly Lys Leu Gln His Pro His Val Arg Leu Phe Ala
11470              35              40              45
11472 Phe Ala Leu Gln Phe Arg Leu Gln Asn Arg Arg Ala Asp Ile Ala Arg
11473 50              55              60
11475 Asp Asn Gly Ile Gln Pro Thr Leu Asp Ala Glu Ile Ala Asp Gln Ala
11476 65              70              75              80
11478 Arg Tyr Arg Gly Phe Ala Val Ala Ala Gly Asn Arg Asn His Leu Val
11479              85              90              95
11481 Ala Ala Ala Val His Asn Val Arg Gln Gln Phe Asp Val Ala Gln His
11482              100              105              110
E--> 11484 Ala Xaa Arg Arg Phe Ala
11485              115
12254 <210> SEQ ID NO: 318
12255 <211> LENGTH: 276
12256 <212> TYPE: PRT
12257 <213> ORGANISM: Neisseria meningitidis
12259 <400> SEQUENCE: 318
12260 Met Gln Asn Phe Gly Lys Val Ala Val Leu Met Gly Gly Phe Ser Ser
12261 1              5              10              15
12263 Glu Arg Glu Ile Ser Leu Asp Ser Gly Thr Ala Ile Leu Asn Ala Leu
12264              20              25              30
12266 Lys Ser Lys Gly Ile Asp Ala Tyr Ala Phe Asp Pro Lys Glu Thr Pro
12267              35              40              45
12269 Leu Ser Glu Leu Lys Ala Gln Gly Phe Gln Thr Ala Phe Asn Ile Leu
12270 50              55              60
E--> 12272 His Gly Thr Tyr Gly Xaa Asp Gly Ala Val Gln Gly Ala Leu Glu Leu
12273 65              70              75              80
12275 Leu Gly Ile Pro Tyr Thr Gly Ser Gly Val Ala Ala Ser Ala Ile Gly
12276              85              90              95
12278 Met Asp Lys Tyr Arg Cys Lys Leu Ile Trp Gln Ala Leu Gly Leu Pro
12279              100              105              110

```

same entry

same entry

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,546

DATE: 06/06/2003

TIME: 14:00:48

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

12281 Val Pro Glu Phe Ala Val Leu His Asp Asp Thr Asp Phe Asp Ala Val
 12282 115 120 125
 12284 Glu Glu Lys Leu Gly Leu Pro Met Phe Val Lys Pro Ala Ala Glu Gly
 12285 130 135 140
 12287 Ser Ser Val Gly Val Val Lys Val Lys Gly Lys Gly Arg Leu Lys Ser
 12288 145 150 155 160
E--> 12290 Val Tyr Glu Glu Leu Lys His Leu Gln Xaa Arg Asn His Cys Arg Thr
 12291 165 170 175
 12293 Phe Tyr Arg Arg Arg Arg Ile Phe Leu Pro Arg Pro Glu Arg Gln Arg
 12294 180 185 190
 12296 Ala Ala Arg His Thr His His Ser Arg Asn Arg Val Leu Arg Leu Arg
 12297 195 200 205
 12299 Ser Gln Val Gln Pro Arg Arg His His Leu Ser Met Ser Phe Gly Arg
 12300 210 215 220
 12302 Phe Asp Arg Ser Arg Arg Lys Pro Asp Ala Arg Thr Gly Gly Ser Arg
 12303 225 230 235 240
 12305 Arg Ala Gly Asn Arg Cys Gly Arg Leu Arg Ala Arg Arg Phe Pro Gln
 12306 245 250 255
 12308 Arg Tyr Arg Arg Gln Thr Leu Ser Val Gly Asn Gln His Pro Ala Arg
 12309 260 265 270
 12311 Tyr Asp Glu Pro
 12312 275
 76670 <210> SEQ ID NO: 1818
 76671 <211> LENGTH: 770 *→ found 722!*
 76672 <212> TYPE: PRT
 76673 <213> ORGANISM: Neisseria meningitidis *- same error*
 76675 <400> SEQUENCE: 1818
 76676 Gly Asx Asx Phe Phe Phe Phe Phe Leu Phe Ala Leu Met Lys Arg Ile
 76677 1 5 10 15
 76679 Phe Leu Pro Ala Leu Pro Ala Ile Leu Pro Leu Ser Thr Tyr Ala Asp
 76680 20 25 30
 76682 Leu Pro Leu Thr Ile Glu Asp Ile Met Thr Asp Lys Gly Lys Trp Lys
 76683 35 40 45
 76685 Leu Glu Thr Ser Leu Thr Tyr Leu Asn Ser Glu Asn Asn Arg Ala Glu
 76686 50 55 60
 76688 Leu Ala Ala Pro Val Tyr Ile Gln Thr Gly Ala Thr Ser Phe Ile Pro
 76689 65 70 75 80
 76691 Ile Pro Thr Glu Ile Gln Glu Asn Gly Ser Asn Thr Asp Met Leu Val
 76692 85 90 95
 76694 Gly Thr Leu Gly Leu Arg Tyr Gly Leu Thr Gly Asn Thr Asp Ile Tyr
 76695 100 105 110
 76697 Gly Ser Gly Ser Tyr Leu Trp His Glu Glu Arg Lys Leu Asp Gly Asn
 76698 115 120 125
 76700 Ser Lys Thr Arg Asn Lys Arg Met Ser Asp Val Ser Leu Gly Ile Ser
 76701 130 135 140
 76703 His Thr Phe Leu Lys Asp Asp Lys Asn Pro Ala Leu Ile Ser Phe Leu
 76704 145 150 155 160
 76706 Glu Ser Thr Val Tyr Glu Lys Ser Arg Asn Lys Ala Ser Ser Gly Lys
 76707 165 170 175

RAW SEQUENCE LISTING

DATE: 06/06/2003

PATENT APPLICATION: US/09/674,546

TIME: 14:00:51

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

```

76709 Ser Trp Leu Ile Gly Ala Thr Thr Tyr Lys Ala Ile Asp Pro Ile Val
76710          180          185          190
76712 Leu Ser Leu Thr Ala Ala Tyr Arg Ile Asn Gly Ser Lys Thr Leu Ser
76713          195          200          205
76715 Asp Gly Ile Arg Tyr Lys Ser Gly Asn Tyr Leu Leu Leu Asn Pro Asn
76716          210          215          220
76718 Ile Ser Phe Ala Ala Asn Asp Arg Ile Ser Leu Thr Gly Gly Ile Gln
76719 225          230          235          240
76721 Trp Leu Gly Arg Gln Pro Asp Arg Thr Asp Gly Lys Arg Glu Ser Ser
76722          245          250          255
76724 Arg Asn Thr Ser Thr Tyr Ala His Phe Gly Ala Gly Phe Gly Phe Thr
76725          260          265          270
76727 Lys Thr Thr Ala Leu Asn Ala Ser Ala Arg Phe Asn Val Ser Gly Gln
76728          275          280          285
76730 Cys Tyr Glx Asn Arg Met Ala Leu Met His Ala Asp Glu Phe Ala Leu
76731          290          295          300
76733 Thr Pro Ala Arg Ala Gly Arg Ala Pro His Phe Asn Thr Asp Asp Ser
76734 305          310          315          320
76736 Glu Gln Glu Asn Cys Glu Cys Gln His Met His Asn His Ala His Trp
76737          325          330          335
76739 His Lys Ser Glu Arg Val Glu Arg Asp Ala Thr Ala Met His Cys His
76740          340          345          350
76742 Ile Arg Asn Asx Ser Glu Asp Cys Glx Glx Glx Glx Pro Gly Thr Ile
76743          355          360          365
76745 Met Glu Ser Asn Glu Trp Arg Met Ala Asn Ser Tyr Met Asx Leu Ala
76746          370          375          380
76748 Arg Ile Ala Leu Cys Arg Ile Glu Arg Asn Glu Trp His Cys Phe Cys
76749 385          390          395          400
76751 Phe Met Lys Arg Ile Phe Leu Pro Ala Leu Pro Ala Ile Leu Pro Leu
76752          405          410          415
76754 Ser Thr Tyr Ala Asp Leu Pro Leu Thr Ile Glu Asp Ile Met Thr Asp
76755          420          425          430
76757 Lys Gly Lys Trp Lys Leu Glu Thr Ser Leu Thr Tyr Leu Asn Ser Glu
76758          435          440          445
E--> 76760 Asn Asn Arg His Lys His Lys His Asp Pro His Pro Xaa Met Lys Arg
76761          450          455          460
76763 Ile Phe Leu Pro Ala Leu Pro Ala Ile Leu Pro Leu Ser Thr Tyr Ala
76764 465          470          475          480
76766 Asp Leu Pro Leu Thr Ile Glu Asp Ile Met Thr Asp Lys Gly Lys Trp
76767          485          490          495
76769 Lys Leu Glu Thr Ser Leu Thr Tyr Leu Asn Ser Glu Asn Asn Arg Met
76770          500          505          510
76772 His Lys Arg Ile Phe His Lys Asn Arg Met Ala Leu Phe His Lys Leu
76773          515          520          525
76775 Phe Lys Met Ile Cys Arg Ser Phe Thr Trp Arg Asp Ser Ala Ala Asp
76776          530          535          540
76778 Leu His Pro Trp Trp Lys Met Asn Phe Met Lys Arg Ile Phe Leu Pro
76779 545          550          555          560
76781 Ala Leu Pro Ala Ile Leu Pro Leu Ser Thr Tyr Ala Asp Leu Pro Leu

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,546

DATE: 06/06/2003

TIME: 14:00:51

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

```

76782          565          570          575
76784 Thr Ile Glu Asp Ile Met Thr Asp Lys Gly Lys Trp Lys Leu Glu Thr
76785          580          585          590
76787 Ser Leu Thr Tyr Leu Asn Ser Glu Asn Asn Arg Thr Ile Thr Leu Glu
76788          595          600          605
76790 Pro Ile Asp Gly Ile Asp Ala Asn Glu Ala Asp Asp Ala Glu Ala Cys
76791          610          615          620
76793 Asx Asp Cys Arg Thr Glu Asn Thr Arg Tyr Arg Glu Phe His Tyr Ala
76794 625          630          635          640
76796 Pro Ala Thr Ala Asx Leu Glu Trp Arg Asp Asp Cys Met Glu Asn Thr
76797          645          650          655
76799 Ser Met Met Ala Arg Tyr Ile Asn Phe Arg Met Ala Thr Ile Asn Asp
76800          660          665          670
76802 Cys Met Glu Asn Thr Ser Met Met Ala Arg Tyr Ile Asn Phe Arg Met
76803          675          680          685
76805 Phe Met Ile Cys Arg Ser Phe Thr Trp Arg Asp Asp Cys Met Glu Asn
76806          690          695          700
76808 Thr Met Ser Trp Arg Asp Asp Cys Trp Arg Asp Asp Cys Met Glu Asn
76809 705          710          715          720
E--> 76811 Thr Gln

```

VARIABLE LOCATION SUMMARY

DATE: 06/06/2003

PATENT APPLICATION: US/09/674,546

TIME: 14:00:56

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

Use of n's or Xaa's(NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:4; Xaa Pos. 19,21,24

Seq#:7; N Pos. 529

Seq#:10; Xaa Pos. 19,59,107,114,208

Seq#:21; N Pos. 350,374,375,376,377,378,379,380,381,382,383,384,385,386,387

Seq#:21; N Pos. 388,389,390,391,392,393,394,395,396,397,398,399,400,401,402

Seq#:21; N Pos. 403,404,405,406,407,408,409,410,411,412,413,414,415,416,417

Seq#:21; N Pos. 418,419,420,421,422,423,424,425,426,427,428,429,430,431,432

Seq#:21; N Pos. 433,434,435,436,437,438,439,440,441,442,443,444,445,446,447

Seq#:21; N Pos. 448,449,450,451,452,453,454,455,456,457,458,459,460,461,462

Seq#:21; N Pos. 463,464,465,466,467,468,469,470,471,472,473,474,475,476,477

Seq#:21; N Pos. 478,479,480,481,482,483,484,485,486,487,488,489,490,491,492

Seq#:21; N Pos. 493,494,495,496,497,498,499,500,501,502,503,504,505,506,507

Seq#:21; N Pos. 508,509,510,511,512,513,514,515,516,517,518,519,520,521,522

Seq#:21; N Pos. 523,524,525,526,527,528,529,530,531,532,533,534,535,536,537

Seq#:21; N Pos. 538,539,540,541,542,543,544,545,546,547,548,549,550,551,552

Seq#:21; N Pos. 553,554,555,556,557,558,559,560,561,562,563,564,565,566,567

Seq#:21; N Pos. 568,569,570,571,572,573,574,575,576,577,578,579,580,581

Seq#:22; Xaa Pos. 54,104,117,125,126,127,128,129,130,131,132,133,134,135

Seq#:22; Xaa Pos. 136,137,138,139,140,141,142,143,144,145,146,147,148,149

Seq#:22; Xaa Pos. 150,151,152,153,154,155,156,157,158,159,160,161,162,163

Seq#:22; Xaa Pos. 164,165,166,167,168,169,170,171,172,173,174,175,176,177

Seq#:22; Xaa Pos. 178,179,180,181,182,183,184,185,186,187,188,189,190,191

Seq#:22; Xaa Pos. 192,193,194

Seq#:40; Xaa Pos. 84

Seq#:52; Xaa Pos. 98

Seq#:63; N Pos. 1,100

Seq#:64; Xaa Pos. 1,34

Seq#:65; N Pos. 67,408

Seq#:66; Xaa Pos. 23

Seq#:71; N Pos. 67,408

Seq#:72; Xaa Pos. 23

Seq#:79; N Pos. 310,311,312,313,314,315,316,317,318,319,320,321,322,323,324

Seq#:79; N Pos. 325,326,327,328,329,330,331,332,333,334,335,336,337,338,339

Seq#:79; N Pos. 340,341,342,343,344,345,346,347,348,349,350,351,352,353,354

Seq#:79; N Pos. 355,356,357,358,359,360,361,362,363,364,365,366,367,368,369

Seq#:79; N Pos. 370,371,372,373,374,375,376,377,378,379,380,381,382,383,384

Seq#:79; N Pos. 385,386,387,388,389,390,391,392,393,394,395,396,397,398,399

Seq#:79; N Pos. 400,401,402,403,404,405,406,407,408,409,410,411,412,413,414

Seq#:79; N Pos. 415,416,417,418,419,420,421,422,423,424,425,426,427,428,429

Seq#:79; N Pos. 430,431,432,433,434,435,436,437,438,439,440,441,442,443,444

Seq#:79; N Pos. 445,446,447,448,449,450,451,452,453,454,455,456,457,458,459

Seq#:79; N Pos. 460,461,462,463,464,465,466,467,468,469,470,471,472,473,474

Seq#:79; N Pos. 475,476,477,478,479,480,481,482,483,484,485,486,487,488,489

VARIABLE LOCATION SUMMARY

DATE: 06/06/2003

PATENT APPLICATION: US/09/674,546

TIME: 14:00:56

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

Seq#:79; N Pos. 490,491,492,493,494,495,496,497,498,499,500,501,502,503,504

Seq#:79; N Pos. 505,506,507,508,509,510,511,512,513,514,515,516,517,518,519

Seq#:79; N Pos. 541

Seq#:80; Xaa Pos. 104,105,106,107,108,109,110,111,112,113,114,115,116,117

Seq#:80; Xaa Pos. 118,119,120,121,122,123,124,125,126,127,128,129,130,131

Seq#:80; Xaa Pos. 132,133,134,135,136,137,138,139,140,141,142,143,144,145

Seq#:80; Xaa Pos. 146,147,148,149,150,151,152,153,154,155,156,157,158,159

Seq#:80; Xaa Pos. 160,161,162,163,164,165,166,167,168,169,170,171,172,173

VERIFICATION SUMMARY

DATE: 06/06/2003

PATENT APPLICATION: US/09/674,546

TIME: 14:00:56

Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

L:23 M:256 W: Invalid Numeric Header Field, Wrong Current FILING DATE:YYYY-MM-DD
 L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16
 L:206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:480
 L:316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:16
 M:341 Repeated in SeqNo=10
 L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:300
 M:341 Repeated in SeqNo=21
 L:843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:48
 M:341 Repeated in SeqNo=22
 L:1513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:80
 L:1862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:96
 L:2179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
 M:341 Repeated in SeqNo=63
 L:2214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
 M:341 Repeated in SeqNo=64
 L:2252 M:252 E: No. of Seq. differs, <211> LENGTH:Input:234 Found:202 SEQ:64
 L:2272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:60
 M:341 Repeated in SeqNo=65
 L:2318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:16
 L:2715 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:60
 M:341 Repeated in SeqNo=71
 L:2760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:16
 L:3078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79 after pos.:300
 M:341 Repeated in SeqNo=79
 L:3115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:96
 M:341 Repeated in SeqNo=80
 L:3260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:112
 L:3425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:16
 M:341 Repeated in SeqNo=90
 L:3584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 after pos.:60
 L:3601 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:98
 L:3978 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109 after pos.:0
 M:341 Repeated in SeqNo=109
 L:4117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110 after pos.:0
 M:341 Repeated in SeqNo=110
 L:4332 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:115
 L:4341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115 after pos.:240
 L:4371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:116 after pos.:80
 L:4758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124 after pos.:32
 M:341 Repeated in SeqNo=124
 L:5035 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:130 after pos.:64
 L:5496 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:143
 L:5503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:120
 M:341 Repeated in SeqNo=143
 L:5529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:32
 M:341 Repeated in SeqNo=144
 L:5597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:64
 L:5746 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:149

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Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

L:5768 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:149 after pos.:1020
L:5848 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:256
M:341 Repeated in SeqNo=150
L:6805 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:168 after pos.:16
M:341 Repeated in SeqNo=168
L:7233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:184 after pos.:0
L:7385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:190 after pos.:0
L:7626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:196 after pos.:0
L:8143 M:254 E: No. of Bases conflict, LENGTH:Input:240 Counted:239 SEQ:213
L:8143 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
M:254 Repeated in SeqNo=213
L:8146 M:252 E: No. of Seq. differs, <211> LENGTH:Input:393 Found:391 SEQ:213
L:8158 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:214
L:8869 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:232
M:340 Repeated in SeqNo=232
L:8903 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:234
L:9503 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:250
L:9768 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:255
L:9789 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:256
M:340 Repeated in SeqNo=256
L:9994 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:261
L:10013 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:262
M:340 Repeated in SeqNo=262
L:10121 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:264
L:10417 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:274
M:340 Repeated in SeqNo=274
L:10695 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:279
M:340 Repeated in SeqNo=279
L:10709 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:280
M:340 Repeated in SeqNo=280
L:10988 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:285
M:340 Repeated in SeqNo=285
L:11081 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:286
L:11269 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:292
M:340 Repeated in SeqNo=292
L:11391 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:296
M:340 Repeated in SeqNo=296
L:11439 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:298
L:11484 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:300
L:12272 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:318
M:340 Repeated in SeqNo=318
L:12374 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:320
L:12613 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:330
L:12749 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:336
L:12795 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:338
L:12966 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:342
L:14041 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:361
M:340 Repeated in SeqNo=361
L:14073 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:362

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Input Set : E:\Chir0334.txt

Output Set: N:\CRF4\06062003\I674546.raw

M:340 Repeated in SeqNo=362
L:14281 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:366
M:340 Repeated in SeqNo=366
L:14510 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:371
L:14557 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:372
L:14755 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:378
L:15181 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:393
M:340 Repeated in SeqNo=393
L:15255 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:396
M:340 Repeated in SeqNo=396
L:15795 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:408
M:340 Repeated in SeqNo=408
L:76811 M:252 E: No. of Seq. differs, <211> LENGTH:Input:770 Found:722 SEQ:1818